

LISTING OF CLAIMS

This listing of claims sets forth all pending claims of the Application, and supersedes all prior claims presented in the captioned application.

Claim 1. (currently amended) A dual slot valve for use in a semiconductor process cluster tool architecture arrangement, the dual slot valve comprising:

a housing having a first side and a second side, the housing having a first slot at the first side and a second slot at the second side for passing a substrate between a first module and a second module, the first module being attached to the first side of the housing and the second module being attached to the second side of the housing;

a first door being movably mounted within the housing to enable closure of the first slot;

a second door being movably mounted within the housing to enable closure of the second slot; and

a drive consisting of a single common actuator shaft connected to each of the first and second doors for selectively and separately moving either of the first and second doors to close the respective slot.

Claim 2. (previously amended) A dual slot valve for use in a semiconductor process cluster tool architecture arrangement, the dual slot valve comprising:

a housing having a first side and a second side, the housing having a first slot at the first side and a second slot at the second side for passing a substrate between a first module and a second module, the first module being attached to the first side of the housing and the second module being attached to the second side of the housing;

a first door being movably mounted within the housing to enable closure of the first slot;

a second door being movably mounted within the housing to enable closure of the second slot;

a common actuator connected to each of the first and second doors for selectively and separately moving either of the first and second doors to close the respective slot, wherein the common actuator has a central position, and wherein when the common actuator is in the central position each of the first door and the second door is placed in an open position that is spaced from and between each of the first slot and the second slot; and

a bias assembly for providing releasable forces to hold the common actuator in the central position so that the first door and the second door are releasably held in the open position.

Claim 3. (original) A dual slot valve for use in a semiconductor process cluster tool architecture arrangement as recited in claim 2, further comprising:

a door drive unit for overcoming the releasable force and moving a selected one of the first and second doors into the respective closed position, wherein the door drive includes two separate drives, each of the separate drives being connected to the common actuator.

Claim 4. (original) A dual slot valve for use in a semiconductor process cluster tool architecture arrangement as recited in claim 3, wherein one of the two drives causes the common actuator to jointly move the first and second doors along an extend-retract path to and from the respective open positions, and wherein another of the two drives causes the

common actuator to overcome one of the releasable forces to move the one of the first and second doors in a second path from the respective open position into the respective closed position.

Claim 5. (original) A dual slot valve according to claim 3, wherein the door drive unit discontinues overcoming the one releasable force when neither of the first and second doors is to be in the respective closed position, and wherein the bias assembly is effective upon the door drive unit discontinuing overcoming the releasable force to provide the releasable force to hold the common actuator in the central position.

Claim 6. (original) A dual slot valve according to claim 2, wherein the common actuator has opposite first and second sides, the bias assembly further comprising:

a separate resilient unit provided on each of the first and second sides of the common actuator, each of the resilient units providing one of the releasable forces, the releasable forces of the separate resilient units normally being in force equilibrium to hold the common actuator in the central position so that the first door and the second door are releasably held in the open position.

Claim 7. (previously amended) A dual slot valve for use in a semiconductor process cluster tool architecture arrangement, the dual slot valve comprising:

a housing having a first side and a second side, the housing having a first slot at the first side and a second slot at the second side for passing a substrate between a first module and a second module, the first module being attached to the first side of the housing and the second module being attached to the second side of the housing;

a first door being movably mounted within the housing to enable closure of the first slot;

a second door being movably mounted within the housing to enable closure of the second slot;

wherein the first and second doors are each elongated to overlap the respective slot and have a center in the middle of a longer side of the doors; and

a common actuator connected to each of the first and second doors for selectively and separately moving either of the first and second doors to close the respective slot, wherein the common actuator is attached to the first door and to the second door at a location that is at the center of each respective door.

Claims 8-20 (canceled)

Claim 21. (currently amended) A dual slot valve for use in a multi-chamber vacuum system, the dual slot valve comprising:

a housing having a first side and a second side, the housing having a first slot at the first side and a second slot at the second side for passing a substrate between a first chamber and a second chamber, the first chamber being attached to the first side of the housing and the second chamber being attached to the second side of the housing;

a first door being movably mounted within the housing to enable closure of the first slot;

a second door being movably mounted within the housing to enable closure of the second slot; and

a drive consisting of a single common actuator shaft connected to each of the first and second doors and mounted for alternate first and second movement, the first movement being toward and away from the first slot and the second movement being simultaneous with the first movement and being away from and toward the second slot for selectively and separately moving either of the first and second doors to close the respective slot while the door that does not close a respective slot remains away from its respective slot.